Item Unique Identification (IUID) Basics

Paul Krumhaus
AMIS Support Contractor

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AMIS
AUTOMATED MOVEMENT AND
IDENTIFICATION SOLUTIONS

US ARMY
PEO EIS
PEO ENTERPRISE INFORMATION SYSTEMS

Scope

- What is Item Unique Identification?

- Why is IUID Important the Army and DOD?

- Which Items Require IUID?

- Looking to the Future

- AMIS Resources to Assist You

IUID / UII Definitions

- Item Unique Identification (IUID) means a system of marking items delivered to the DOD with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. "IUID" generally refers to the program, rather than the data.

- Unique Item Identifier (UII) means a set of data marked on items that is globally-unique, unambiguous, and robust enough to ensure data information quality throughout life and to support multi-faceted business applications and users

UII is Like a Social Security Number - for Things

Item Unique Identification (IUID)

1. Assign an item a globally-unique identification number

   Will <u>functionally</u> replace the SN

2. Register that number and supporting pedigree information in a central database

3. Apply a permanent machine-readable mark to the item, containing that Unique Item Identifier (UII)

   Enables error-free data transfer

4. Use that globally-unique identification number for lifecycle management of the item

   DATA

5. DOD and Army transition to use of IUID involves:

   - The marking of millions of items meeting IUID criteria that are already in the inventory

     CAG 75117 SER 100001 Do Not Remove
     CAG 75117 SER 100002 Do Not Remove

   - Automated systems enabled to use the UII

IUID = Item Unique Identification
UII = Unique Item Identifier
DOD = Department of Defense

CAG = Commercial Activity / Government Entity
IGCE = Independent Government Cost Estimate

Item Unique Identification

Item Unique Identification is a simple, easily understandable, common sense concept.
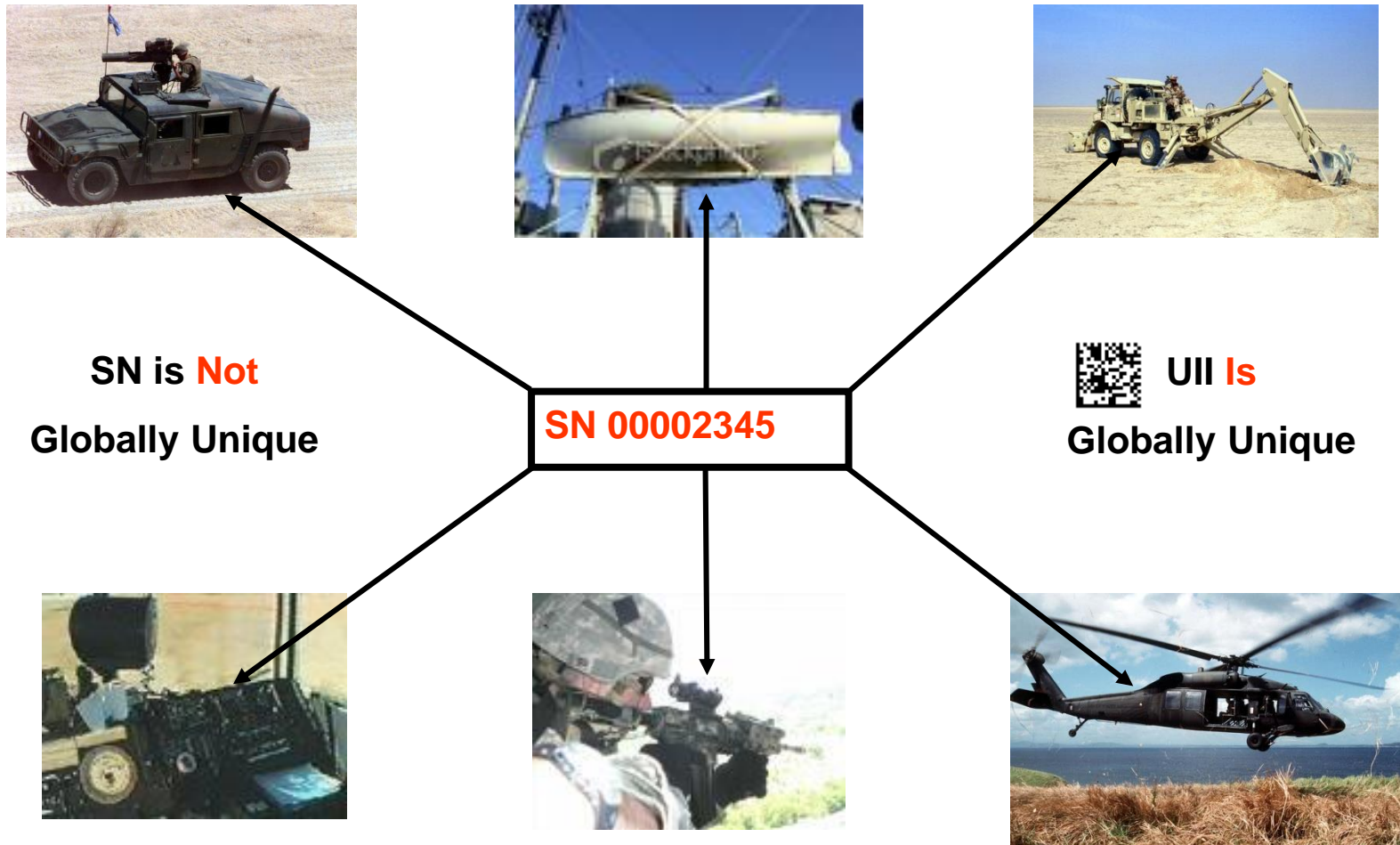

Execution Details

What is Encoded in the Data Matrix?

- **Data from which the unique item identifier (UII) is <u>derived</u>**
- **In most cases, the data matrix does not contain all of the data found in the derived UII**
- **There are over 50 different ways to encode a UII in the data matrix**
- **To extract a UII from the data matrix requires software that converts the data read by the imager into the UII. This software can be resident in either the imager or in a computer to which the imager passes what it reads.**
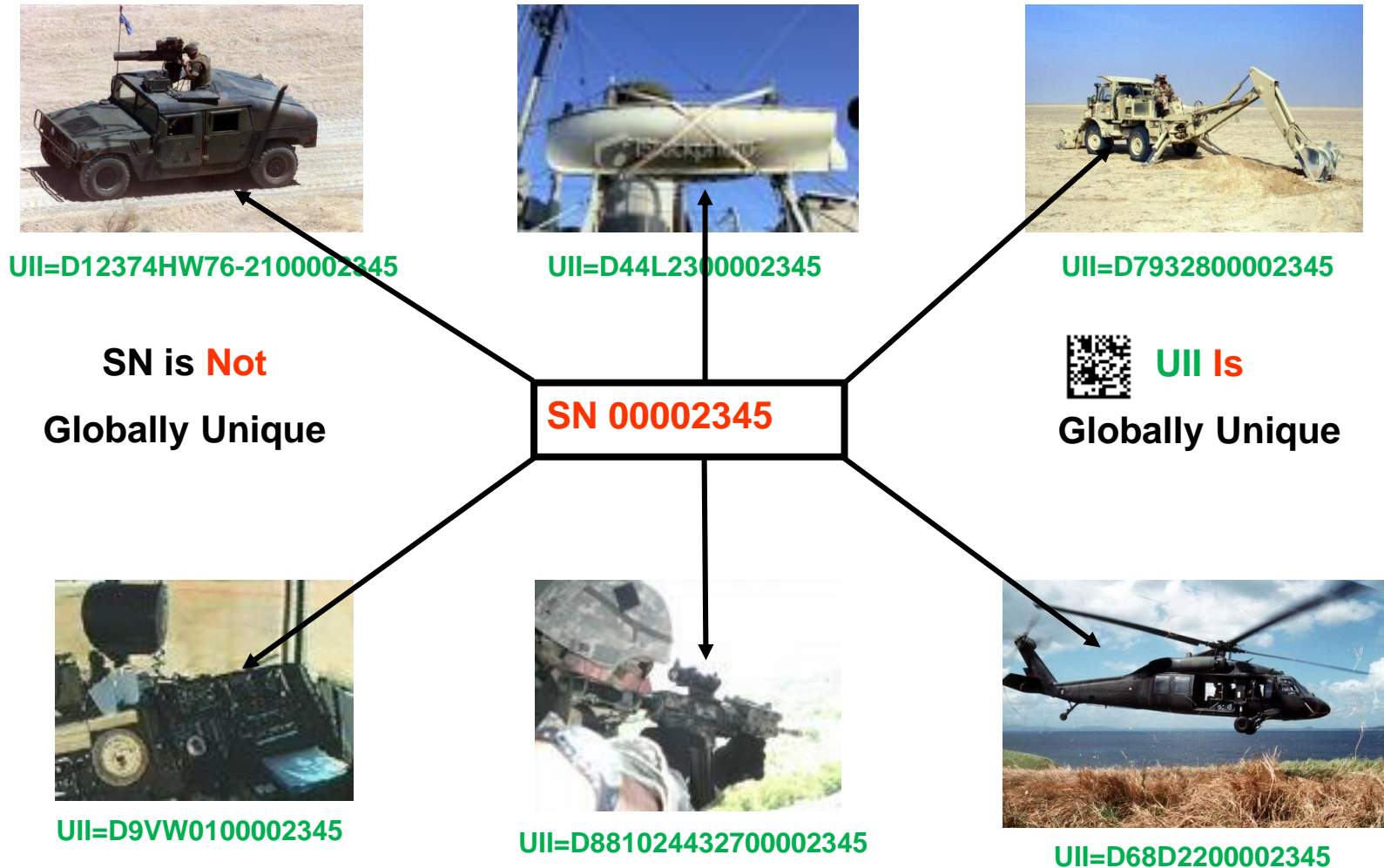- **The UII is <u>almost never marked on the item in human readable form</u>**

Serial Number (SN) vs. UII

SN is Not

Globally Unique

SN 00002345

UII Is

Globally Unique

UII – Unique Item Identifier

Serial Number (SN) vs. UII (Cont.)

UII=D12374HW76-2100002345

UII=D44L2300002345

UII=D7932800002345

SN is Not

Globally Unique

SN 00002345

UII Is

Globally Unique

UII=D9VW0100002345

UII=D881024432700002345

UII=D68D2200002345

UII – Unique Item Identifier

Transitioning to IUID - a Simple Concept

1005678

SERIALLY MANAGED
BECOMES IN EFFECT
UNIQUELY MANAGED

D192071005678

MANUAL DATA ENTRY
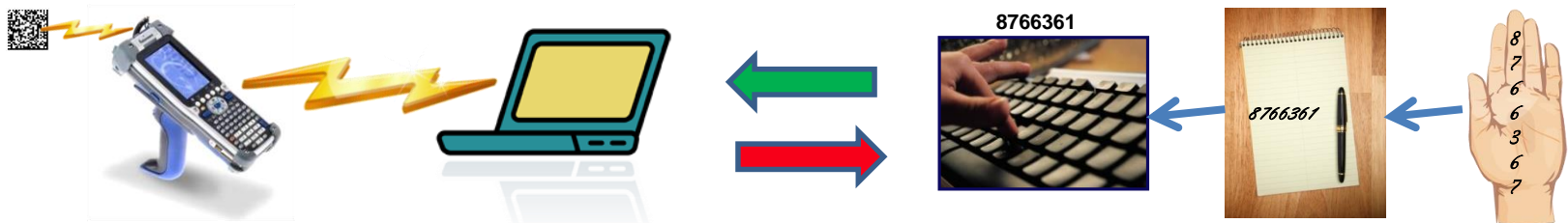### BECOMES
AUTOMATED DATA ENTRY

IUID – Item Unique Identification

Changes When Dealing With Uniquely Identified vs. Serialized Items

- Unique Item Identifier (UII) is

  – Derived from data encoded in a data matrix mark that requires an imager to read and software to do the derivation process

  – Not marked on the item in human readable

  – Associated with the item in maintenance, property accountability and other databases – a single data element that uniquely identifies

- The need to use an imager to capture the UII ensures data integrity

  – After upload, data is to be shared among systems by being passed electronically (NOT by keyboard entry)

Importance of IUID

- Why is IUID important to the Army and DOD?
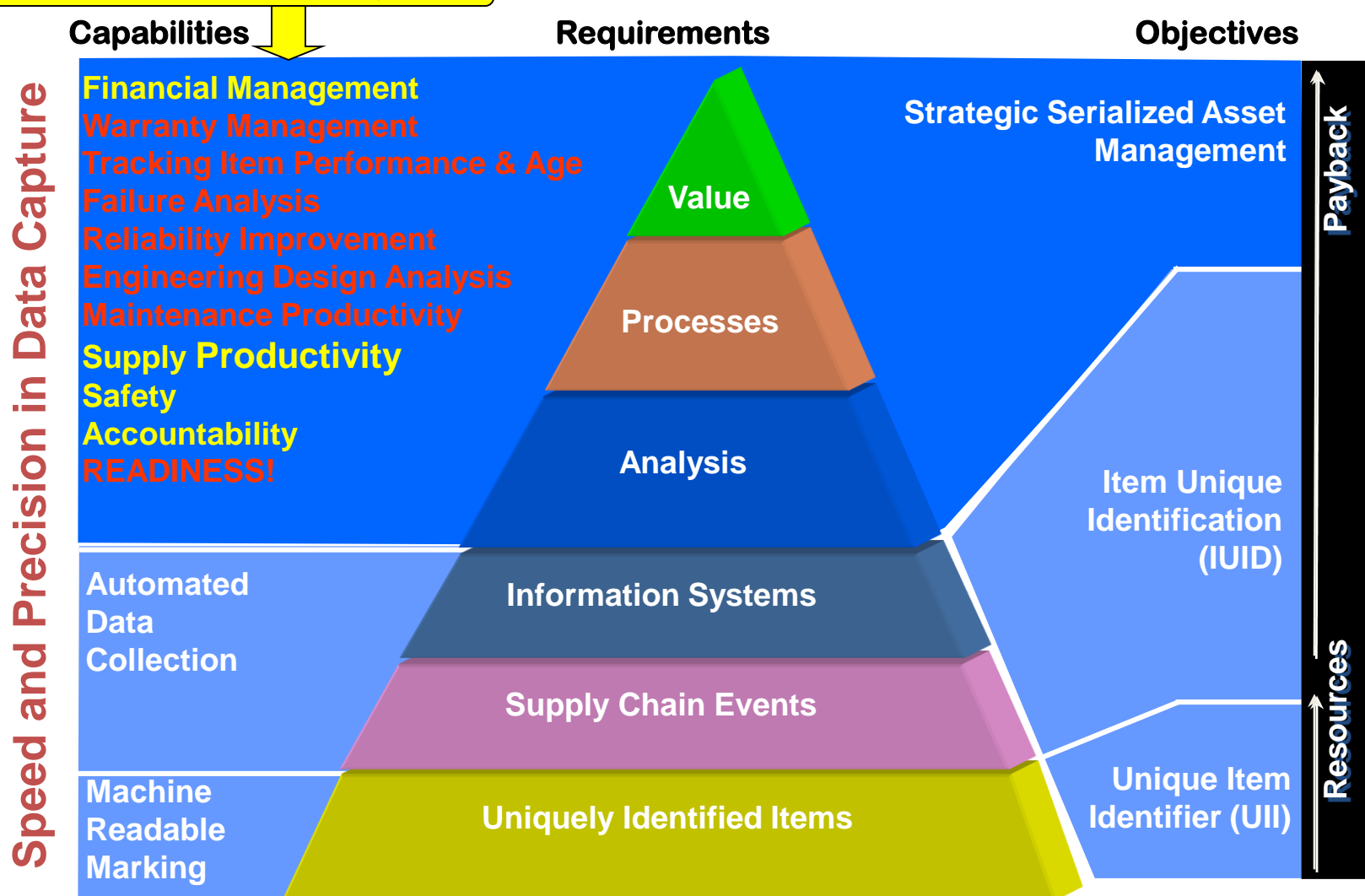

UII = **DATA**

which will enable reliable unique item level traceability across all DOD business systems
A <u>single data element</u> that will identify the item
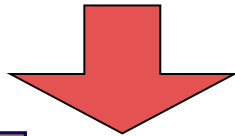
IUID- Essential to **Materiel Readiness**

AMIS

Functions supported by IUID

Speed and Precision in Data Capture

Capabilities	Requirements	Objectives

Capabilities:
- Financial Management
- Warranty Management
- Tracking Item Performance & Age
- Failure Analysis
- Reliability Improvement
- Engineering Design Analysis
- Maintenance Productivity
- Supply Productivity
- Safety
- Accountability
- READINESS!

- Automated Data Collection
- Machine Readable Marking

Requirements (Pyramid, top to bottom):
- Value
- Processes
- Analysis
- Information Systems
- Supply Chain Events
- Uniquely Identified Items

Objectives:
- Strategic Serialized Asset Management
- Item Unique Identification (IUID)
- Unique Item Identifier (UII)

Payback

Resources

Automatic Identification Technology (AIT) is Key to IUID Data Integrity

D123455513HGR13136574867635009

UII can contain up to 50 characters

Goal – Eliminate key entry of data!

Each uniquely identified item must bear a data matrix symbol containing the data from which its Unique Item Identifier (UII) is derived.

Today -

Imager Enables Error-Free Data Transfer!

Tomorrow - ?

Elements of an IUID-enabled Solution

AMIS

AIT – Automatic Identification Technology

AIS – Automated Information System

IUID – Item Unique Identification

UII – Unique Item Identifier

IUID-Enabled Maintenance Management

UII - Marked Property

Maintenance Management AIS Accommodating UII and AIT

Automatic Identification Technology (Readers)

CL VII

CL II & IX

GCSS-A

GCSS-A

CL – Supply Class
GCSS-A – Global Combat Support System - Army

Items Requiring IUID

- Which Items require IUID?
  - NOTE: OSD is in the process of revising the IUID requirement. DODI 8320.04 was revised in Sep 15 a corresponding DFARS 211.274-2 revision is pending. AR 700-145 was revised in Feb 16. A new Army Serialized Item Management Policy is pending. The <u>DOD Guide to Uniquely Identifying Items</u>, Version 3.0, 2 December 2014 will also likely be changed to reflect the new IUID criteria.

  - Any item that is serialized should be looked at as a prime candidate for IUID. "The UII will <u>functionally</u> replace the serial number (items will continue to have serial numbers)."

  - IUID criteria applies to all tangible personal property, regardless of whether it has an NSN

  - Eventually the Federal Logistics Information System (FLIS) and WebFLIS will populate an "IUID Indicator" identifying whether each NSN requires IUID (Y/N). Today, the WebFLIS IUID Indicator is unreliable.

  - Unit level personnel not authorized to IUID-mark items without authorization and direction from higher HQ.

OSD – Office of the Secretary of Defense
NSN – National Stock Number

Looking to the Future

- Expect

  – DFARS 211.274-2 revision and new Army Directive –Interim SIM policy.

  – As the Army Executive Agent for legacy item marking, AMC will continue executing an enterprise-oriented Army IUID legacy marking program for Class II, and VII in FY12-16; the program will field-apply additive IUID marks to identified unmarked class II and VII legacy items requiring IUID

  – Army G-4 will remain responsible to ensure that legacy items meeting mandatory IUID criteria in other classes of supply and in Class II, and VII that are not marked by the AMC program are marked and registered and that the industrial base replaces any additive IUID marks with IUID marks embedded in equipment data plates/labels when the equipment undergoes depot-level maintenance

  – ASA (ALT) and the PM community will be responsible to ensure that newly acquired items requiring IUID are marked prior to acceptance by the government and registered via WAWF.

  – Army SIM policy to specify catalog codes to be used to ID items likely requiring IUID.

  AMC – Army Materiel Command
  ASA(ALT) – Assistant Secretary of the Army, Acquisition Logistics and Technology
  IMMC – Integrated Materiel Management Center
  SIM _ Serialized Item Management

Where Can You Get Help?

- AR 70-1

  - 6–15. Item unique identification

    - *b. The PMs will—*

      - "(8) Use the PM, J–AIT" (now AMIS) "as a source for AIT products and technical expertise"

- AMIS website:
http://www.usarmyamis.army.mil/CustomerSupport/iuid.html

- AMIS IUID POC:

  - Email: usarmy.belvoir.peo-eis.list.pd-amis-iuid@mail.mil

  - (703) 806-0547 or DSN 656-0547

When it comes to most aspects of IUID implementation, we've been there and done that, or know people who have.